

REMARKS

The Office Action and the cited and applied references have been carefully reviewed. No claim is allowed. Claims 1-6, 8-10, and 28 under consideration by the examiner are being replaced by new claims 29-32. Reconsideration and allowance are hereby respectfully solicited.

The rejection of claims 1-6 and 8-10 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 4 of U.S. Patent No. 6,207,641 B1 is obviated by the amendment to the claims. New claim 29 (and claims 31-32 dependent therefrom) positively recites that a functional equivalent of interleukin-1 β , in which one or more cysteine residues are replaced with different amino acid residues, is present in the composition either alone or in combination with the interleukin-1 β of SEQ ID NO:6. Accordingly, new claims 29-32 are indeed patentably distinct from claims 1, 3 and 4 of U.S. Patent No. 6,207,641 B1.

Reconsideration and withdrawal of this rejection are therefore respectfully requested.

Claims 1-6 and 8-10 remain rejected, and newly submitted claim 28 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite and claims 1-3, 5, and 8-10 remain rejected under 35 U.S.C. §112, first paragraph, for

lack of enablement and lack of written description. This rejection is made moot by the cancellation of the rejected claims. As for new claims 29-32, applicants submit that the term "functional equivalent" is more clearly defined in new claim 29. Support for "functional equivalents" as recited in new claim 29 is found in the specification at page 4, line 5 to page 6, line 20.

Applicants believe that a person having ordinary skill in the art would easily understand and obtain "functional equivalents" based on the disclosure in the specification at page 4, line 5 to page 6, line 20, and the state of the art at the time the present application was filed.

Claims 1-6 and 8-10 remain rejected under 35 U.S.C. §102(a) as being anticipated by Ushio et al., EP 0712921 A2, for the reasons cited in the last Office Action, Paper No. 12, at pages 7-8. This rejection is obviated by the cancellation of the rejected claims and it is submitted that it does not relate to new claims 29-32 because there is no disclosure or teaching in Ushio of amino acid substitution at cysteine residues as is positively recited in new claim 29.

Claims 1-3, 6, and 8 remain rejected under 35 U.S.C. §102(e) as being anticipated by Okamura et al. U.S. 5,912,324. This rejection is also obviated by the cancellation of the

rejected claims. Like the §102(a) rejection above, this rejection also does not apply to new claims 29-31 because there is no disclosure or teaching in Okamura of amino acid substitution at cysteine residues as is positively recited in new claim 29.

Claim 28 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Ushio et al., EP 0712931 A1 or Okamura et al., U.S. 5,312,324, as applied to the claims above and further in view of Mark et al., U.S. 4,568,688. This rejection is made moot by the cancellation of rejected claim 28. The rejection as it might recite to new claims 29-31 is discussed below.

Mark merely teaches that the cysteine residue in the amino acid sequences of IFN- β and IL-2 is not indispensable for the expression of biological activity of these cytokines. Mark certainly provides no information about other cytokines, and in particular, human IL-18. Applicants believe that it is quite difficult, even for one of skill in the art, to understand that the findings of Mark on IFN- β and IL-2 can be extrapolated to human IL-18, which is just one of many cytokines. Accordingly, applicants submit that Ushio or Okamura in combination with Mark cannot lead one of ordinary skill in the art to the presently claimed invention.

In re Appln. No.: 09/030,061

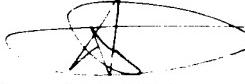
Reconsideration and withdrawal of the rejection are therefore respectfully requested.

In view of the above, the claims comply with 35 U.S.C. §112 and define patentable subject matter warranting their allowance. Favorable consideration and early allowance are earnestly urged.

Respectfully submitted,

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